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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,579	09/19/2005	Tomoschiro Tamura	050526	1193
23850 7590 04/22/2008 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005			EXAMINER RINEHART, KENNETH	
			ART UNIT 3749	PAPER NUMBER
			MAIL DATE 04/22/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,579

Applicant(s)

TAMURA ET AL.

Examiner

Kenneth B. Rinehart

Art Unit

3749

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6,7,10,15,16 and 22 is/are rejected.
- 7) ☒ Claim(s) 2-5,8,9,11-14,17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/16/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 7, 10, 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE4409607 in view of Gileta (5,113,882). DE4409607 discloses a refrigerant is circulated through a compressor (9), a radiator (10), an expansion mechanism (11) and an evaporator (8) through pipes, said drying apparatus comprising: a drying air flow path (1) operable to introduce drying air heated by the radiator to the subject to be dried, dehumidify the drying air which has been introduced to the subject by using the evaporator, and, heat the dehumidified drying air to return it into the drying air (fig. 1), a heat pump having a compressor (9), a radiator (10), an expansion mechanism (11) and an evaporator (8) connected via pipes through which a refrigerant is circulated; a drying air flow path (1) operable to produce drying air heated by said radiator to a subject to be dried, dehumidify the drying air which has been introduced to the subject by using said evaporator, and heat the dehumidified drying air to return it into the drying air (fig. 1), a refrigerant accommodating container disposed in the drying air flow path to accommodate a refrigerant (48), said drying air flow path is provided with a refrigerant accommodating container operable to accommodate a refrigerant (48). Gileta teaches and a bypass circuit (76) through which a portion of the drying air heated by the radiator flows to the evaporator (48) without coming into contact with the subject to be dried (fig.1) for the purpose of increasing the

air enthalpy value at the periphery of the evaporator inlet. It would have been obvious to one of ordinary skill in the art to modify DE4409607 by including and a bypass circuit (76) through which a portion of the drying air heated by the radiator flows to the evaporator (48) without coming into contact with the subject to be dried as taught by Gileta for the purpose of increasing the air enthalpy value at the periphery of the evaporator inlet. DE4409607 in view of Gileta (5,113,882) discloses applicant's invention substantially as claimed with the exception of in relation to a point at which the drying air passing through said bypass circuit meets the drying air passing through the subject to be dried, the drying air passing through said bypass circuit reaches the meeting point from a position located below the meeting point in a direction of gravity of the drying air passing through the subject to be dried. It would have been obvious to one having ordinary skill in the art at the time the invention was made to in relation to a point at which the drying air passing through said bypass circuit meets the drying air passing through the subject to be dried, the drying air passing through said bypass circuit reaches the meeting point from a position located below the meeting point in a direction of gravity of the drying air passing through the subject to be dried, since to shift the location of working parts of a device involves only routine skill in the art. The applicant is merely combining prior art according to known methods to yield predictable results.

Allowable Subject Matter

Claim 22 is allowed.

Claims 2-5, 8, 9 and 11-14, 17, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B. Rinehart whose telephone number is 571-272-4881. The examiner can normally be reached on 7:10 -4:10.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kbr

/Kenneth B Rinehart/
Primary Examiner, Art Unit 3749